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AUTHOR Holloway, Susan D.
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ABSTRACT

Studies of causal attributions among elementary school children and their mothers in Japan and in the United States indicate that the Japanese are more likely to cite effort as the primary cause of school achievement. In the United States, ability is more frequently selected as a key factor. The characteristics of Japanese mother-child interaction and of social relations within the elementary classroom illustrate that the cooperative social contexts of home and school shape causal attribution by mothers and children. Research from the United States on attribution within both cooperative and competitive reward structures illustrates how the cooperative nature of Japanese achievement settings is likely to foster attribution to effort rather than ability. Analysis indicates that attributional patterns must be evaluated in conjunction with the social context of achievement. Japanese achievement settings are described as being strongly supported by parents and peers, with both home and school settings reflecting the cooperative and interdependent nature of Japanese society. It is recommended that extrapolation to the United States should consider the context in which Japanese achievement occurs as well as the differences in societal context between the United States and Japan. A five-page reference list is included. (Author/MDE)

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Concepts of Ability and Effort
in Japan and the United States

Susan D. Holloway
Department of Human Development
University of Maryland
College Park MD 20742

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Abstract

Recent studies of causal attributions among elementary school children and their mothers in Japan and the United States indicate that the Japanese are more likely to cite effort as the primary cause of achievement in school. In the U.S., ability is more frequently selected as a key factor. In order to analyze how the cooperative social contexts of home and school in Japan shape causal analysis of mothers and children, I first outline characteristics of mother-child interaction and of social relations within the elementary classroom which demonstrate the salience of cooperative social relations. Research from the U.S. on attributions within cooperative and competitive reward structures is then used to illustrate how the cooperative nature of Japanese achievement settings is likely to foster attributions to effort rather than ability. From this analysis, it becomes clear that attributional patterns must be evaluated in conjunction with the social context of achievement; patterns that are adaptive in Japan may not enhance motivation in the U.S.

Over the last 15 years, attribution theory has been a major force in explaining motivated behavior in achievement settings. The theory contends that the explanations students give for their success or failure on academic tasks are related to their motivation regarding subsequent tasks (Weiner, 1979). Recent studies of attributions in Japan have stimulated new discussion about the adaptiveness of various attribution patterns as far as stimulating motivated behavior. In interviews with mothers and children in the U.S. and Japan, it has become evident that the Japanese place significantly more emphasis on effort as a cause of success than do Americans (Holloway, Kashiwagi, Hess, & Azuma, 1986; Stevenson, Lee, & Stigler 1986). In the current search for explanations for the low performance of American children in comparison to the Japanese, it is tempting to suggest that Americans would benefit from adopting a similar attribution pattern. Indeed, such exhortations are found in media reports of this research.

In this article I argue that the unique social context of Japan has to be taken into account in order to understand how attributions function within the culture. Little is known about the role of attributions in motivating Japanese children. However, the substantial body of U.S. literature on attributions within cooperative versus competitive settings suggests that focusing on effort and downplaying ability is common in settings characterized by cooperative relationships. These findings

are thus helpful in interpreting achievement within the achievement settings of Japanese homes and schools, which are characterized by interdependence between mother and child, and cooperative relations among students in the classroom.

To develop this analysis of contextual determinants of attributions within Japan, I draw upon several bodies of literature. First, I review the literature on attributions, including studies comparing Japan and the U.S. I then provide an overview of those features of the Japanese home and elementary classroom that are relevant to children's motivation to achieve. The focus of this section is on the dimension of cooperation or interdependence that underlies these achievement settings. Next, I use the U.S. literature on attributions in cooperative vs. competitive settings to illuminate the significance of attributions to effort and ability in the interdependent contexts of Japanese education.

Attribution Theory: An Overview

According to attribution theory, the causal explanations individuals offer for experiences of success and failure are related to important aspects of motivated behavior on subsequent tasks (Weiner 1979; 1984). One important characteristic of attributions is whether they are stable or unstable across time. The stability of attributions is associated with the individual's expectations concerning future performance. For example, if a child attributes poor performance

on a math test to a stable factor such as low ability, he or she is likely to expect low performance on subsequent tests.

Attributions may also be classified as internal or external relative to the individual. Locus of causality is related to the individual's affective response to the incident. Theoretically, attributions to internal causes when failure has occurred will produce emotions such as shame or embarrassment, whereas attributions to external causes may generate anger or resentment. For high performance, internal attributions may be associated with pride whereas external attributions give rise to gratitude or relief.

Later models of attribution theory have also included the dimension of controllability. Individuals who attribute failure to factors beyond their control (e.g., luck, mood) are probably less motivated to attempt subsequent tasks than those who cite controllable factors such as effort (Weiner, 1980).

In light of this theoretical model, it has been predicted that motivated behavior should be associated with attributions to stable, internal factors, such as ability, to explain successful performance. To explain unsuccessful performance, attributions to unstable, controllable factors such as lack of effort may be most adaptive. In fact, the few studies relating young children's attributions to achievement outcomes find that children who attribute success to ability, or those who do not attribute lack of success to lack of ability tend to obtain

higher scores on achievement tests (Greene, 1985; Holloway, 1987; Marsh, 1984) and are more likely to plan to pursue further courses in high school mathematics (Pedro, Wolleat, Fennema, & Baker, 1981). No relation was found between ability attributions regarding achievement in science and classroom behavior in a study of junior high school students (Hall, Howe, Merkel, & Lederman, 1986).

In contrast to this reasonably clear pattern for ability attributions, findings regarding attributions to effort have been less consistent. Attribution retraining studies indicate that children who are taught to attribute low performance to effort show more persistence on subsequent tasks (Andrews & Debus, 1978; Chapin & Dyck, 1976; Dweck, 1975; Fowler & Peterson, 1981; Schunk, 1982). Based on these findings, attribution retraining has been suggested as a valuable technique for teachers to use with their students (Cecil & Medway, 1986).

However, the effectiveness of the effort attribution has been challenged in naturalistic studies examining its relation to school performance. It has been argued that attributing low performance to an internal factor such as effort undermines self-confidence and hence lowers motivation. Thomas (1980) has claimed that it is unlikely that low achieving students will run the risk of trying and failing again, even if an adult points out the relationship between effort and success, unless this advice is coupled with an instructional strategy that provides immediate

and meaningful payoff. Schunk (Schunk, 1981; Schunk & Cox, 1986) has also pointed out that self-efficacy is maximally enhanced when attributional feedback is combined with particular types of instruction.

In fact, the findings from studies relating the effort attribution to actual school achievement are mixed. For example, Marsh (1984) found a negative relationship between attributions to lack of effort and achievement test scores. Several other studies have found no relationship between effort attributions and children's achievement (Greene, 1985; Holloway, 1987), and effort attributions were not related to classroom behavior in Hall et al.'s (1986) study. These results have led to a reconsideration of the effectiveness of the effort attribution in the U.S.

In light of the somewhat negative picture emerging from U.S. studies of attributions to effort, it is interesting that the findings on attributions in Japan have reopened the investigation. Comparisons of attributions by children in Japan and the U.S. indicate that the effort attribution is much more salient in Japan than in the U.S.. In one study, sixth grade children in the U.S. asked to distribute 10 tokens across five attributions to explain low performance in mathematics placed far greater emphasis on lack of ability than lack of effort, bad luck, or inadequate assistance by parents or teachers (Holloway et al., 1986). In contrast, Japanese children weighted lack of

effort most heavily. In both countries, the children's mothers were also asked for explanations regarding the children's performances. Their responses mirrored the pattern found for children.

Similar results were reported by Stevenson, Lee, & Stigler (1986) in a comparison of mothers' beliefs in Japan, Taiwan, and the U.S. Japanese mothers rated effort as the primary cause of success in school, and gave substantially less weight to ability, task difficulty, and luck, while mothers in the U.S. rated effort and ability approximately equally. The conviction that competence stems from effort is also demonstrated in a survey of youth and adults, in which 72% of the respondents attributed success to effort or endurance (Lebra, 1976).

At this time, there are no Japanese data in which the relationship between attributions and achievement is investigated. However, both Holloway et al. (1986) and Stevenson et al. (1986) suggest that such an attributional pattern should foster the motivation of Japanese children. The question we ask is how the social context of Japan creates and lends meaning to the attributional patterns of Japanese children. In undertaking this analysis we are taking a social constructivist position, arguing that motivation stems not solely from internal, individual cognitions, but is socially negotiated by the participants in the learning enterprise (Sivan, 1986). Therefore, we analyze those features of the educational context

that are likely to influence the constructed meaning of children's causal attributions in Japan. In particular, we focus on the interdependent nature of social relations in the home and classroom.

Interdependence within the Japanese Family

One obvious way in which Japanese families differ from those in the U.S. is the Japanese emphasis on cooperation among group members. Within the Japanese family, there is less emphasis on the autonomy of individual family members than in the U.S. To understand interdependence within the Japanese family, it is helpful to refer to historical patterns of family relationships. Traditionally, the household (ie) was the most salient social unit in Japan until the latter half of the nineteenth century. The individual was not defined by personal traits but by membership in a particular family. Property was not held by the individual but by the family collective. Women did not marry an individual man, but formally joined a new ie (Singleton, 1967).

While the strength of the ie has declined in recent times, the relationship between mother and child in Japan remains extraordinarily close by U.S. standards. As soon as the infant is born, he or she becomes part of the amae/amayakasu relationship. Amae refers to dependence on the benevolence of another, while its complement, amayakasu, denotes a deferentially indulgent attitude. These interlocking sets of behavior form the basis of the collective structure characterizing Japanese society

(Doi, 1971). A central role of the mother is to engage the child in the amae/amayakasu relationship. Traditionally, a variety of practices regarding infants contributed to this goal, including sleeping with the infant, co-bathing, and avoiding the use of babysitters (Lebra, 1986).

As children move beyond infancy, Japanese mothers' socialization practices are intended to cultivate a child who is sunao, or authentic in intent and cooperative in spirit (Shimahara, 1986). Comparisons of the expectations Japanese and American mothers hold for their children's behavior indicate that Japanese mothers expect earlier mastery of skills indicating emotional maturity, obedience, and social courtesy, while American mothers expect earlier mastery of verbal assertiveness and leadership in peer interactions (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980). Japanese mothers also use control strategies that call attention to the impact on the mother's feelings of the child's misbehavior, while U.S. mothers are more likely to appeal to their own authority or power to gain compliance from a child (Conroy, Hess, Azuma, & Kashiwagi, 1980).

These parental values and beliefs are instrumental in orienting the child to becoming a functional member of a collective unit.

Another salient example of the closeness of the mother-child relationship is the intensive involvement of mothers in their children's education. Traditionally, the individual family member operated in the public domain as a representative of the

family collective. In modern times, the child's achievement in school demonstrates the family's virtues as well as those of the individual. Therefore, it is in the mother's interest to work closely with the child to meet this challenge.

Starting when their children are in preschool, mothers informally teach games and activities, and purchase educational materials such as writing and counting games, books, and children's magazines (Lebra, 1976; Taniuchi, 1982). For elementary school children, mothers' participation becomes even more intense, involving monitoring the child's progress, tutoring, and perhaps taking on part-time work to pay for supplementary classes. Stevenson, Lee, & Stigler (1986) report that 58% of Japanese parents bought their children mathematics workbooks, compared to 28% in the U.S. Only 1% of American parents bought science workbooks, as opposed to 29% in Japan.

Thus, while Japanese children are under increasingly severe pressure to achieve as they progress through elementary and high school, they move through these experiences with massive support both emotionally and materially from the family. At the same time, Japanese children develop a sense of obligation to meet the expectations of their family members (Lebra, 1976).

Interdependence within the Japanese Classroom

Compared to the cooperative social relations characterizing the family, the interdependent nature of social relations in the Japanese classroom is perhaps less obvious to the Western

observer. The intense competition to succeed on examinations and win a place in a prestigious university appears to surpass the U.S. focus on individualistic forms of achievement. However, this competition contains elements that differentiate it from achievement settings in the U.S. For, while Japan has adopted the skeletal structure of Western schools, the social rules within the classroom are distinctly Eastern and traditional, especially at the preschool and primary school levels.

Again, a glance at historical patterns is helpful in interpreting current phenomena. The earliest Japanese schools were founded in the late eighteenth century to teach Confucian literature and military skills to the samurai class. Instruction included primarily recitation and memorization of Confucian passages, which emphasized the values of selfless discipline and strong fortitude. Individual virtue and self-denial exhibited through persistent study and memorization may have been more important than the pursuit of scholarship or the acquisition of literary skill (Passin, 1965).

During the Meiji push to modernize in the late 1800's the skeletal structure of a mass schooling system was implemented. Mass education was viewed as one way to shed the constraints of caste, rewarding individuals based on their initiative and merit. The modern content of knowledge now emphasized technical skills important to the economy, not the building of character and proficiency in moral philosophy (Passin, 1965). This more

uniform knowledge could also be tested by a standard national exam, allegedly increasing fairness and replacing particularistic with meritocratic criteria for advancement.

Ethnographic studies of classroom structure are particularly effective in illustrating the perseverance of more traditional forms of social organization within the overall competitive and individualistic structure of Japanese schooling. Several studies of preschools illustrate how teachers call attention to the individual child's place within the collective (Hendry, 1986; Lewis, 1984). For example, children are often referred to by the name of their 6-8 member work group, not by their individual name. Groups perform academic tasks together, as well as eating lunch and playing together. More able children are purposely distributed across groups. In addition, specific strategies are used to encourage cooperation among group members. For instance, the number of children in a work group may exceed the number of paint brushes available.

Control strategies used by teachers also resemble social rules found in collective organizations. Early in the year, children are taught rituals and procedures which unobtrusively guide behavior. When a problem occurs, the teacher maintain a low profile, leaving to work groups the responsibility for resolving disagreements. When teachers do take personal action, extrinsic rewards and sanctions are rarely used. An inappropriate behavior is often followed by an explanation of

what the proper behavior entails.

In later grades, the focus on fostering interdependent social relations continues (Shimahara, 1986). Activities such as frequent meetings, classroom cleaning, and school outings are designed to promote the formation of habits characterized by cooperation, order, and self-discipline. The homeroom is frequently used as the framework for organizing these activities (Rohlen, 1983). Sport clubs and other student associations are also encouraged to further advance affiliation with the school.

It is clear from these studies that the socialization practices within the school come not from the West, but instead from Japan's historical commitment to the collective family unit and its extension into public settings (as encouraged by Confucian ideology). Thus, Japan has borrowed from the West in reforming the general rules of achievement with a system of mass schooling. But the means of patterning children's behavior draw heavily from Japan's distinct cultural tenets.

The effects of this cultural pattern of interdependence on children's and parents' attributions cannot fully be answered with the limited data currently available. However, one source of information that can be used to interpret the attributional patterns emerging in recent studies of Japan is the work on attributions within cooperative, competitive, and individualistic settings within the U.S. This work is reviewed in the next section, and used to interpret how attributions are shaped and

given meaning in Japan.

Conceptions of Ability and Effort in Cooperative and
Competitive Settings: Lessons from the U.S.

The relationship between reward structure and attributions has been demonstrated in a series of laboratory studies by Ames and her colleagues (e.g., Ames, 1981; Ames & Ames, 1981). In a study manipulating reward structure (cooperative versus competitive), performance outcome of the group (successful versus unsuccessful), and performance level of the individual child (high versus low), Ames (1981) found that winning in competitive settings produces attribution to high ability, but that losing resulted in salient attributions to low ability. In successful cooperative groups, low performing children judged their ability higher, and felt more deserving of reward than children in successful competitive groups.

In a second study, competitive situations were compared with those that were individualistic (Ames & Ames, 1981). In the individualistic structure, reward was allocated to individuals, but did not hinge on performing better than another person, as it did in the competitive structure. Children were more likely to make effort attributions in the individualistic than in the competitive structures. In competitive settings, social comparison was a more salient informational cue than was past performance, which was salient in individualistic goal structures.

In fact, various writers have commented on the competitiveness of U.S. classrooms and noted likely effects on children's concepts of ability and effort of situations which focus attention on social comparisons of performance thereby emphasize the question of how smart one is (Nicholls, 1979). One example of how the nature of American classrooms shapes children's concepts of ability and effort is found in the development of these concepts from kindergarten to through high school. In the earliest school grades, effort, ability, and achievement are not distinguished (Harari & Covington, 1981; Nicholls, 1978). Later, around the second to fourth grades, effort is seen as the cause of successful outcomes, while ability is seen as fluid, and capable of improvement through effort. By about eighth grade, ability is considered to be stable, independent of effort, and a strong moderator of the effort/outcome variation. From then on the notion of ability becomes the most salient predictor of achievement outcomes. It seems likely that these developmental changes are associated with the increasingly competitive nature of social relations in the class (Rosenholtz & Simpson, 1984). It would be of interest to know more about the development of these concepts in Japanese children, but data in English on this topic are scarce.

Toward a Social Contextual Interpretation of

Attributions in Japan

Applying information gathered from American studies of

attributions in cooperative and competitive settings to the description of interdependence within the Japanese family and school, it becomes clearer why the notion of effort is salient to Japanese children. Classrooms in Japan are organized to de-emphasize competition among students and authority relations between students and the teacher. Parents provide abundant encouragement and technical assistance to help their children meet the challenge of the examination system. This structure is likely to deflect the focus from the self as judged relative to others, and diminish the belief that one must achieve more with equal or less effort than others. Children in this structure are likely to develop a concept of ability which is judged high or low with reference to their own past performance, so that gains in mastery -- achievable through effort -- indicate competence.

Because there is no evidence concerning the relationship of attributions to achievement in Japan, it can only be speculated that this relationship would be positive. Of particular importance is the notion that in Japan a major aspect of the interdependent relationship between parent and child, and between pupil and teacher, is the careful cultivation of effective learning strategies. In Japan, as we have seen, children receive support from the family in approaching instructional tasks. Parents' provision of workbooks, tutoring, assistance on homework, and other forms of help undoubtedly increase children's

perceptions that strategies for improving performance are available if necessary. In the Japanese classroom, social relations between classmates also provide this moral support. Additionally, rituals and procedures, or "fundamental living habits" (Shimahara, 1986) are established early on to ensure that students have a well-established framework within which to achieve. Thus, Japanese children are not expected to "sink or swim" based on nothing but an exhortation to try hard; rather, this motivational prompting is backed up with a great deal of personal support and carefully constructed processes for maximizing the likelihood of success.

In addition to clarifying the meaning of differences between Japan and the U.S., analysis of the social context has important implications for studies of attributions within this culture. While attribution theory began as an investigation of an individual's causal appraisal of a single event, it is increasingly being applied as a dispositional trait. While individual differences in causal analysis processes have been documented, motivation is a function of the environment as well as the learner (Holloway & Fuller, 1983; Sivan, 1987; Thomas, 1980). Few studies of the interaction between attributional and situational variables have been conducted with young children (see Bugental, Whalen, & Henker, 1977 and Pascarella & Pflaum, 1981 for important exceptions); this approach clearly deserves serious consideration in future investigations.

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